

Example showing Modeling with Mathematics

Jane wants to host a party for 18 people. She wants everybody to sit at the same rectangular table. Each person needs 2 feet of space at the table to sit and eat comfortably. Jane is asking for your help to design the table.

- a) What would be the perimeter of the table?
- b) What dimensions could you use for the design of the table?



Across the Grades: Constraints - Elementary Example

George wants to buy a new bike.
He has \$30 saved already, but
needs another \$160 to buy the
bike. George needs your help
creating a savings plan so that he
will have enough money in 5
weeks to buy his bike.



Across the Grades: Assumptions - Middle School Example



You want to tile your rectangular kitchen floor. You know the dimensions of the kitchen are 20ft by 13ft.

- a) What information do you need to determine how much it will cost you to tile the floor yourself?
- b) How much will it cost for you to tile the floor yourself?

Across the Grades: Problem Complexity - High School

Sarah loves to go scuba diving when she has free time. When Sarah goes scuba diving she has to wear extra weights to help her descend to the bottom of the ocean. The other day Sarah was taking a little bag full of coins to deposit in her bank account. As she held the bag, she began to wonder if her scuba weights were really worth their cost or if it would be better to put coins in a bag and use those as her weights. Convince Sarah which option will be better.

